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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/693,026 | 10/23/2003 | Jason Wolter Klein | 30163.24681 | 2378 |

*26781 7590 07/27/2007
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| EXAMINER |
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DANIELS, MATTHEW J

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| ART UNIT | PAPER NUMBER |
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1732

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| MAIL DATE | DELIVERY MODE |
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07/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|---------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/693,026 | Applicant(s) KLEIN ET AL. | |
| | Examiner Matthew J. Daniels | Art Unit 1732 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-9 and 12-16 is/are pending in the application.
- 4a) Of the above claim(s) 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 12-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 27 April 2007 has been entered. In this reply, Claims 1, 6, 11, and 13 were amended.

Election/Restrictions

2. This application contains claim 12 drawn to an invention nonelected with traverse. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 102

3. Rejections set forth previously under this section are withdrawn in view of the amended claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Rejections set forth previously under this section are withdrawn in view of the amended claims.

5. **Claims 1, 2, and 6** are rejected under 35 U.S.C. 103(a) as being unpatentable over Feldmann (USPN 6284180) in view of Sloniewsky (USPN 4662863). As to **Claim 1**, Feldmann teaches a method for forming a dual power belt in a press having a heatable first planar mold half and a heatable second planar mold half (Fig. 1, item 3, 3:48-49), the method comprising the steps of:

providing first teeth-forming recesses in said first planar mold half and providing second teeth-forming recesses in said second planar mold half (Fig. 1, items 1 and 2);

building a belt slab comprising tooth forming material (3:6-18, note slab stock applied as continuous sheet wrapped around inner or outer surface of green belt, 3:15-18);

positioning said belt slab between said first and second planar mold halves, said belt slab not having pre-formed teeth (Fig. 2, items 7,9); and,

forcing said tooth forming material into said tooth-forming recesses in said first and second planar mold halves (Fig. 4, teeth are progressively formed by compression on both inner and outer face).

Feldmann is silent to (a) building a belt slab comprising tooth forming material positioned between first and second layers of tooth facing fabric, and (b) whereby said first layer of facing fabric is pushed into said teeth-forming recesses in said first mold half ahead of said tooth stock material and said second layer of facing fabric is pushed

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into said teeth-forming recesses in said second mold half ahead of said tooth stock material.

However, these aspects of the invention would have been prima facie obvious over Sloniewsky, who teaches (a) building a formed belt comprising tooth material positioned between first and second layers of facing fabric (14a, 14b). In the combination of Sloniewsky with Feldmann, it is submitted that Feldmann's forming process would have implicitly resulted in the tooth material being pushed into the teeth-forming recesses ahead of the tooth stock material in view of Sloniewsky's teaching in Fig. 5 that the fabric remains on the surface.

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Sloniewsky into that of Feldmann in order to (a) help absorb the driving forces applied to the belt (Sloniewsky, 3:52-64), (b) help to release the formed teeth from their respective molds by implicitly acting as a release layer, and (c) provide improved strength to the belt.

As to Claim 2, Sloniewsky teaches a cord layer (23), and one would be motivated to incorporate the cord layer in order to increase the strength of the belt and in view of Feldmann's disclosure of reinforcement within the belt (4:27-28). **As to Claim 6**, in the method of Feldmann, the belt slab is built into a continuous loop prior to the step of positioning (Fig. 2 and Col. 3).

6. **Claims 3-5 and 7-9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Feldmann (USPN 6284180) in view of Sloniewsky (USPN 4662863), and further in view of Stecklein (USPN 4359355). Feldmann and Sloniewsky teach the subject matter

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of Claim 1 above under 35 USC 103(a). **As to Claim 3**, Feldmann is silent to a barrier layer positioned between first and second layers of tooth fabric facing material.

However, Stecklein teaches a barrier layer of (Fig. 1, item 20) positioned between first and second layers of elastomeric tooth material (Fig. 1). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Stecklein into that of Feldmann in order to (a) provide lateral reinforcement, and (b) restrain movement of the cords (Stecklein, Fig. 1, item 18) by providing an overcord (Stecklein, 2:55-60). **As to Claim 4**, Feldmann is silent to the barrier layer, however, Sloniewsky teaches the first and second layers of tooth facing fabric (see the rejection of Claim 1). Stecklein further teaches positioning a cord layer between the teeth and adjacent a first layer of tooth facing fabric (3:52, item 34, also Fig. 1, items 34 and 18). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Stecklein into that of Feldmann in order to (a) provide lateral reinforcement, and (b) restrain movement of the cords (Stecklein, Fig. 1, item 18) by providing an overcord (Stecklein, 2:55-60). **As to Claim 5**, Feldmann appears to be silent to the steps of forcing recited in Claim 5. However, Stecklein teaches a cord layer and barrier layer (Fig. 1, items 18 and 20). Because the cord layer is discontinuous, it would have been obvious that a first portion of tooth stock material would flow through the cord layer and the barrier layer and into the lower recesses. Because the top layer is substantially continuous, it would have been obvious that the second portion forming the top surface would not pass through the cord layer. It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Stecklein into that of Feldmann in order to (a)

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provide lateral and tensile reinforcement, (b) restrain movement of the cords (Stecklein, Fig. 1, item 18) by providing an overcord (Stecklein, 2:55-60), and (c) provide molded top and bottom surfaces, as required by Feldmann. **As to Claim 7**, this claim invokes 35 USC 112, sixth paragraph because it requires “means” and lacks sufficient structure to accomplish this function. The means are edge waste pockets or waste pockets. However, Stecklein teaches that it is known to provide waste pockets which are subsequently trimmed. In view of Fig. 3 and Fig. 5 of Stecklein, these are interpreted to be waste pockets and edge waste pockets, and are consistent with Figs. 4 and 5. It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method Stecklein into that of Feldmann in order to (a) provide the ability to make multiple belts simultaneously, and (b) to provide excess material such that the belts are capable of being trimmed down to the appropriate size. **As to Claims 8 and 9**, Stecklein teaches or suggests both edge channels and waste pockets (Figs. 1, 2, 3, 5). Belts on either side of the middle belt (Fig. 1) could be interpreted to be edge channels and waste pockets with respect to the middle belt. It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Stecklein into that of Feldmann for the reasons set forth above with regard to Claim 7.

7. **Claims 11, 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Feldmann (USPN 6284180) in view of Sloniewsky (USPN 4662863) and Stecklein (USPN 4359355). **As to Claims 11 and 13**, Feldmann teaches a method for forming a

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dual power belt in a press having a heatable first planar mold half and a heatable second planar mold half (Fig. 1, item 3, 3:48-49), the method comprising the steps of:

providing first teeth-forming recesses in said first planar mold half and providing second teeth-forming recesses in said second planar mold half (Fig. 1, items 1 and 2);

building a belt slab comprising tooth forming material (3:6-18, note slab stock applied as continuous sheet wrapped around inner or outer surface of green belt, 3:15-18);

positioning said belt slab between said first and second planar mold halves, said belt slab not having pre-formed teeth (Fig. 2, items 7,9); and,

forcing said tooth forming material into said tooth-forming recesses in said first and second planar mold halves (Fig. 4, teeth are progressively formed by compression on both inner and outer face) by decreasing a distance between the first and second mold halves (Figs.).

Feldmann is silent to (a) providing a waste pocket, generating excess material, and accommodating excess material in the waste pocket, (b) building a belt slab comprising a tensile member and tooth forming material positioned between first and second layers of tooth facing fabric, (c) whereby said first layer of facing fabric is pushed into said teeth-forming recesses in said first mold half ahead of said tooth stock material and said second layer of facing fabric is pushed into said teeth-forming recesses in said second mold half ahead of said tooth stock material.

However, these aspects of the invention would have been prima facie obvious over Sloniewsky and Stecklein for the following reasons:

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(a) Stecklein teaches a mold having waste pockets (portion between lateral belts, or the belts on either side of the middle belt, Figs. 1, 2, 3, 5).

(b) Stecklein teaches that it is known to provide a tensile member (18) into the belt slab.

Sloniewsky teaches building a formed belt comprising tooth material positioned between first and second layers of facing fabric (14a, 14b).

(c) In the combination of Sloniewsky with Feldmann, it is submitted that Feldmann's forming process would have implicitly resulted in the tooth material being pushed into the teeth-forming recesses ahead of the tooth stock material in view of Sloniewsky's teaching in Fig. 5 that the fabric remains on the surface.

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the methods of Stecklein and Sloniewsky into that of Feldmann in order to (a) help absorb the driving forces applied to the belt (Sloniewsky, 3:52-64), (b) help to release the formed teeth from their respective molds by implicitly acting as a release layer, (c) provide improved strength to the belt, (d) to simultaneously form multiple belts, which would provide a more efficient process, and (e) to remove excess material in order that the belts will conform to their required dimensions.

As to Claims 14-16, in the method of Stecklein, it is disclosed that after the curing the belts may be separated (Fig. 1, item 66) or trimmed (Fig. 3, item 25). The trimming disclosed by Stecklein is interpreted to be deflashing of excess material after curing, grinding, and milling, or alternatively, that grinding or milling of the portion between belts would have been obvious over the suggestion to trim the flashing, and grinding and milling are obvious methods of trimming material. It is noted that grinding and milling were asserted to be well known methods of finishing articles in the 30

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November 2006 Final Rejection (page 8), and this assertion does not appear to be particularly argued.

Response to Arguments

8. Applicant's arguments filed 27 April 2007 have been fully considered but they are not persuasive or are moot in view of the new grounds of rejection set forth above. The arguments appear to be on the following grounds:

- a) Sloniewsky does not teach a flat belt
- b) Terhune does not teach planar molds to form a power drive belt without pre-forming of the teeth.

9. These arguments are not persuasive or moot for the following reasons:

a,b) Note the method of Feldmann relied upon above which is believed to be a better reference than Sloniewsky or Terhune for its teaching of forming inner and outer teeth from a preform having inner and outer pieces of slab stock. The teachings of Sloniewsky are pertinent regarding reinforcement on the surface or inside the article.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Daniels whose telephone number is (571) 272-2450. The examiner can normally be reached on Monday - Friday, 8:00 am - 4:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Matthew J. Daniels

A.U. 1732
23 July 2007